

## CLAIMS

1. A sound capture device:  
a transducer;  
a supply conductor for conveying a supply signal to the transducer; and  
a signal conductor for conveying an electrical signal produced by the transducer in response to a sound pressure wave.
2. A sound capture device in accordance with claim 1, further comprising:  
an amplifier connected between the transducer and the signal conductor, the signal conductor conveying an amplified electrical signal produced by the amplifier in response to the electrical signal.
3. A sound capture device in accordance with claim 2, further comprising an internal conductor connected between an electrical signal output of the transducer and an amplifier input of the amplifier, the internal conductor having an internal conductor length less than a signal conductor length of the signal conductor.
4. A sound capture device in accordance with claim 3, wherein the internal conductor length is less than one tenth of the signal conductor length.
5. A sound capture device in accordance with claim 4, wherein the internal conductor length is less than one one-hundredth of the signal conductor length.
6. A sound capture device in accordance with claim 2, wherein the amplifier comprises a plurality of amplification stages having power gains greater than one.

7. A sound capture device in accordance with claim 6, wherein the power gains are greater than 10 dB.

8. A sound capture device in accordance with claim 7, wherein the power gains are greater than 15 dB.

9. A sound capture device in accordance with claim 8, wherein the plurality of amplification stages comprise exactly two amplification stages.

10. A sound capture device in accordance with claim 1, further comprising a transmission interface for housing the supply conductor and the signal conductor.

11. A sound capture device in accordance with claim 10, wherein the transmission interface comprises a plurality of transmission interface cables, the signal conductor housed within a first interface cable and the supply conductor housed within a second interface cable.

12. A sound capture device in accordance with claim 11, wherein the transmission interface comprises:

a supply interface cable comprising a positive supply conductor, a negative supply conductor and a common supply conductor; and

a signal interface cable comprising a first signal conductor, a second signal conductor, and a common signal conductor.

13. A sound capture device in accordance with claim 12, wherein the common signal conductor is a shield encompassing the first signal conductor and the second signal conductor.

14. A sound capture device in accordance with claim 10, wherein the transmission interface, the supply conductor and the signal conductor form a single transmission interface cable.

15. A sound capture device in accordance with claim 1, further comprising:  
         another transducer producing another electrical signal in response to the sound pressure wave;  
         another a signal conductor for conveying the another electrical signal.

16. A sound capture device in accordance with claim 15, further comprising:  
         another amplifier connected between the another transducer and the another signal conductor, the another signal conductor conveying another amplified electrical signal produced by the another amplifier in response to the another electrical signal.

17. A sound capture device in accordance with claim 16, wherein the another transducer is separated from the transducer at a separation distance in accordance sound reception at human ears on a human head facing a sound source.

18. A sound capture device in accordance with claim 17, wherein the separation distance is between 10 and 14 inches.

19. A sound capture device in accordance with claim 18, wherein the separation distance is between 11 and 13 inches.

20. A sound capture device in accordance with claim 19, wherein the separation distance is approximately 12 inches.

21. A sound capture device in accordance with claim 17, wherein the transducers are positioned to form an angle between an axis of the transducer and an axis of the another transducer between 15 and 45 degrees.

22. A sound capture device in accordance with claim 21, wherein the angle is between 25 and 35 degrees.

23. A sound capture device in accordance with claim 22, wherein the angle is approximately 30 degrees.

24. A sound capture device comprising:  
a transducer for producing an electrical signal in response to a sound pressure wave; and  
an amplifier for amplifying the electrical signal to produce an amplified electrical signal, the amplifier co-located with the transducer and comprising a plurality of amplification stages having power gains greater than one.

25. A sound capture device in accordance with claim 24, further comprising:  
a power input configured to connect to a supply conductor of a transmission interface; and  
a signal output configured to connect to a signal conductor of the transmission interface.

26. A sound capture device in accordance with claim 25, further comprising an internal signal conductor connected between an electrical signal output of the transducer and an amplifier input of the amplifier, the internal conductor having an internal conductor length less than a signal conductor length of the signal conductor.

27. A sound capture device in accordance with claim 26, wherein the internal conductor length is less than one tenth of the signal conductor length.

28. A sound capture device in accordance with claim 27, wherein the internal conductor length is less than one one-hundredth of the signal conductor length.

29. A sound capture device in accordance with claim 24, wherein the power gains are greater than 10 dB.

30. A sound capture device in accordance with claim 29, wherein the power gains are greater than 15 dB.

31. A sound capture device in accordance with claim 30, wherein the plurality of amplification stages comprise exactly two amplification stages.

32. A sound capture device in accordance with claim 25, wherein the transmission interface, the supply conductor and the signal conductor form a transmission interface cable.

33. A sound capture device in accordance with claim 32, wherein the transmission interface comprises a plurality of transmission interface cables, the signal conductor housed within a first interface cable and the supply conductor housed within a second interface cable.

34. A sound capture device in accordance with claim 33, wherein the transmission interface comprises:

a supply interface cable comprising a positive supply conductor, a negative supply conductor and a common supply conductor; and

a signal interface cable comprising a first signal conductor, a second signal conductor, and a common signal conductor.

35. A sound capture device in accordance with claim 34, wherein the common signal conductor is a shield encompassing the first signal conductor and the second signal conductor.

36. A sound capture device in accordance with claim 24, further comprising:

another transducer producing another electrical signal in response to the sound pressure wave; and

another signal output configured to connect to another signal conductor for conveying the another electrical signal.

37. A sound capture device in accordance with claim 36, further comprising another amplifier connected between the another transducer and the another signal output.

38. A sound capture device in accordance with claim 37, wherein the another transducer is separated from the transducer at a separation distance in accordance with sound reception at human ears on a human head facing a sound source.

39. A sound capture device in accordance with claim 38, wherein the separation distance is between 10 and 14 inches.

40. A sound capture device in accordance with claim 39, wherein the separation distance is between 11 and 13 inches.

41. A sound capture device in accordance with claim 40, wherein the separation distance is approximately 12 inches.

42. A sound capture device in accordance with claim 38, wherein the transducers are positioned to form an angle between an axis of the transducer and an axis of the another transducer between 15 and 45 degrees.

43. A sound capture device in accordance with claim 42, wherein the angle is between 25 and 35 degrees.

44. A sound capture device in accordance with claim 43, wherein the angle is approximately 30 degrees.

45. A sound capture device comprising:  
a transducer for producing an electrical signal at an electrical signal output in response to a sound pressure wave received at a transducer sound input;  
an amplifier comprising a plurality of amplification stages having power gains greater than one and an amplifier input connected to the electrical signal output through an internal signal conductor, the amplifier producing an amplified electrical signal at an amplifier output in response to the electrical signal;  
a supply interface cable comprising at least one supply conductor for conveying electrical power to the transducer and to the amplifier; and  
a signal interface cable comprising at signal conductor in electrical communication with the amplifier output, the internal signal conductor having an internal conductor length less than a signal conductor length of the signal conductor.

46. A sound capture device in accordance with claim 45, wherein the internal conductor length is less than one tenth of the signal conductor length.

47. A sound capture device in accordance with claim 46, wherein the internal conductor length is less than one one-hundredth of the signal conductor length.

48. A sound capture device in accordance with claim 45, wherein the power gains are greater than 10 dB.

49. A sound capture device in accordance with claim 48, wherein the power gains are greater than 15 dB.

50. A sound capture device in accordance with claim 45, wherein the plurality of amplification stages comprise exactly two amplification stages.

51. A sound capture device comprising:  
a first transducer; and  
a second transducer positioned at a separation distance from the first transducer, the separation distance in accordance with sound reception at human ears on a human head facing a sound source.

52. A sound capture device in accordance with claim 51, wherein the separation distance is between 10 and 14 inches.

53. A sound capture device in accordance with claim 52, wherein the separation distance is between 11 and 13 inches.



54. A sound capture device in accordance with claim 53, wherein the separation distance is approximately 12 inches.

55. A sound capture device in accordance with claim 51, wherein the transducers are positioned to form an angle between an axis of the first transducer and an axis of the second transducer between 15 and 45 degrees.

56. A sound capture device in accordance with claim 55, wherein the angle is between 25 and 35 degrees.

57. A sound capture device in accordance with claim 56, wherein the angle is approximately 30 degrees.

58. A method comprising:  
 receiving electrical power at a transducer through at least one supply conductor;  
 producing an electrical signal in response to a received sound signal;  
 transmitting the electrical signal through an internal signal conductor to an amplifier;  
 amplifying the electrical signal to produce an amplified electrical signal; and  
 transmitting the amplified electrical signal through a signal conductor.

59. A method in accordance with claim 58, wherein the amplifying comprises:  
 amplifying the electrical signal through a plurality of amplification stages.

60. A method in accordance with claim 59, wherein the amplifying comprises:

- amplifying the electrical signal to a first amplitude to form a partially amplified signal; and
- amplifying the partially amplified signal to a second amplitude to form the amplified electrical signal.

61. A method in accordance with claim 58, wherein the amplifying comprises:

- amplifying the electrical signal to form the amplified electrical signal having a line level voltage.

62. A method in accordance with claim 61, wherein the amplifying comprises:

- amplifying the electrical signal to form the amplified electrical signal having a root mean square (RMS) voltage level between 2 and 6 volts.

63. A method in accordance with claim 58, wherein the transmitting the amplified electrical signal comprises transmitting the amplified electrical signal through the signal conductor having a signal conductor length greater than an internal conductor length of the internal conductor.